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10/706,617	11/12/2003	Shinya Wada	SCEP 20.732 (100809-00225	5866

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2010*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16, 20-22, and 26* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-16, 20-22, and 26* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

This office action corresponds to application 10/706,617 filed 11/12/2003.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/3/2010 has been entered.

Response to Amendment

Claims 1, 10, 12, 14, and 20-22 have been amended in the response filed 6/3/2010. Claims 23-25 has been cancelled. Accordingly, claims 1-16, 20-22, and 26 are pending in this application.

Claim Objections

The previous claim objections have been withdrawn in light of the amendments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-6, 9, 10, 12-14, 16, 20-22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Björn et al ('Björn' hereafter, U.S. Patent 6,714,222) in view of Brosnan et al. ('Brosnan' hereafter, U.S. Patent Application 2004/0002380).

With respect to claim 1, Björn teaches A file processing apparatus (601) comprising a computer processor (607), said file processing apparatus including:

an attribute input unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function wherein each unit of the present invention is taught by a specialized circuit) which acquires (col. 7 lines 55-61 wherein an attribute must be acquired for a comparison between magnets to take place) a value of an attribute (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) from the computer processor (processor 605) in order to represent a value of a predetermined attribute for an intended file (107) as a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said attribute comprising at least one of: a date and time of file preparation, a date and time of file updating, an importance of the file to be set by the user, a type of file to be determined by data format or file usage, a number of times that the file is updated, and a parameter indicating a frequency of file updating (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user);

a comparison processing unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function) which compares (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) the value of the attribute with a reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets);

a position determining unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function) which sets a relative display position (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) within a range of motion (col. 2 line 17-19 and col. 7 line 37-52) defined by the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), wherein the relative display position (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) represents the physical weight (col. 3 lines 10-12 and col. 4 lines 44-45) of the attribute (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) relative to the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), wherein the relative display position (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) is set based on a result (col. 7 line 45-49; e.g. the wherein another magnet is placed according to attraction or rejection to magnet 107) obtained from said comparison processing unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function); and

a display processing unit (GUI 611) which visually represents the value of the attribute (Fig. 1) in terms of whether the physical weight (col. 3 lines 10-12 and col. 4 lines 44-45) of the predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) is heavy or light (col. 7 lines 58-59), wherein an initial display

position (Fig. 1 and col. 7 line 10; e.g. a default position) of the predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) is set by said position determining unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function), and wherein the display processing unit (GUI 611) visually represents a virtual force (col. 7 lines 57-59; a movement according to "lighter" or "heavier) exerted on the predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in at least one direction (col. 7 line 44-45) to displace the predetermined object from the initial display position (Fig. 1 and col. 7 line 10; e.g. a default position) to the relative display position (col. 7 line 61) within the range of motion (col. 2 line 17-19 and col. 7 line 37-52).

Although Björn teaches a relative display position that represents physical weight, Björn does not appear to expressly teach wherein the relative display position represents density and further a virtual buoyant force exerted on the predetermined object.

Brosnan, however, teaches wherein the relative display position represents density (0073 and 0130; e.g. the physical properties may include density) and further a virtual buoyant force exerted on the predetermined object (0129 wherein Brosnan teaches an object moving through water and 0138 wherein Brosnan explicitly teaches buoyancy forces) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to

describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

With respect to claim 3, Björn teaches a file processing apparatus according to claim 1, wherein said attribute input unit acquires values of the attribute for a plurality of files (fig. 1; e.g. a plurality of magnets), said comparison processing unit sets a value of an attribute for at least one of the plurality of files to the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), said position determining unit sets relative display positions of a plurality of objects corresponding to the plurality of files (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107), respectively, and wherein said display processing unit displays the plurality of files at the respective display positions and visually represents the comparison of weights of the files via another object representative of the measurement of the weights (Fig. 1 and col. 7 lines 38-52).

With respect to claim 4, Björn teaches a file processing apparatus according to claim 3 wherein said comparison processing unit sets, as the reference value, a size of a storage area that stores at least one file (607), said position determining unit sets a relative display position of an object indicative of the storage area according to the size of the storage area, and wherein said

display processing unit visually expresses the comparison of data size between the at least one

file and the storage area via the another object (col. 8 lines 1-3).

With respect to claim 5, Björn teaches a file processing apparatus according to claim 1,

wherein said attribute input unit acquires values of an attribute for a plurality of files and said

comparison processing unit classifies the plurality of files into a plurality of groups (col. 12 lines

49-51 and col. 5 lines 7-19) according to the respective values of the attribute, and wherein said

display processing unit displays the object in an appearance corresponding to the respective

groups as categories (fig. 1).

With respect to claim 6, Björn teaches a file processing apparatus according to claim 1,

wherein said attribute input unit acquires values of an attribute for a plurality of files (col. 7lines

55-60), said comparison processing unit classifies the plurality of files into a plurality of classes

(fig. 1; e.g. "Shopping", "Food" "Calendar") col. 12 lines 49-51 and col. 5 lines 7-19 to teach

groups as classes) and sequentially compares the values of an attribute for each class (col.7 line

55-col. 8 line 6 that teaches comparison via interaction between magnets), wherein, after relative

display positions are temporarily determined respectively as positions that initially display

objects for the plurality of files (Fig. 1 and col. 7 line 10; e.g. a default position), said position

determining unit sequentially updates the relative display positions in a manner such that

comparison results for each class are reflected for each class, and wherein said display

processing unit varies the display of the objects according to said updating after the plurality of

files are displayed at the temporally determined relative display positions (col. 7 lines 38-66).

With respect to claim 9, Björn teaches a file processing apparatus according to claim 1 further including:

an instruction receiving unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function) which receives an instruction from a user intending to change the display position of the object as an input section (col. 2 lines 17-25; e.g. a drag or tap operation to relocate an object; and

an effect generator (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function) which causes, based on the instruction, said position determining unit and said display processing unit to process a change in any of position, shape and appearance of the object (col. 2 lines 13-25; e.g. the object is relocated after the user specifies an operation to teach a change position).

With respect to claim 10 Björn teaches A method of processing files in a processing device, comprising:

acquiring a value of an attribute (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) from a computer processor (processor 605) in order to represent a value of a predetermined attribute for an intended file (107) as a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said attribute comprising at least one of: a date and time of file preparation, a date and time of file updating, an importance of the file to be set by the user, a type of file to be determined by data format or file usage, a number of times that

the file is updated, and a parameter indicating a frequency of file updating (col. 8, lines 2-6; e.g.

a weight, wherein the weight may be set by a user to teach an importance set by the user);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches

comparison) the value of the attribute with a reference value (col. 7 line 58; e.g. virtual magnet

107 which serves as a reference to other magnets);

setting a relative display position (col. 7 line 45-49; e.g. the display of another magnet

relative to magnet 107) of a predetermined object (col. 5 line 39-40; wherein the magnets are

represented by circular shapes with a pictogram in the center) within a range of motion (col. 2

line 17-19 and col. 7 line 37-52) defined by the reference value (col. 7 line 58; e.g. virtual

magnet 107 which serves as a reference to other magnets), wherein the relative display position

(col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) represents the

physical weight (col. 3 lines 10-12 and col. 4 lines 44-45) of the attribute (col. 8, lines 2-6; e.g. a

weight or number of shopping lists (i.e. size)) relative to the reference value (col. 7 line 58; e.g.

virtual magnet 107 which serves as a reference to other magnets), wherein the relative display

position (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) is set based

on a result obtained from the comparison step (col. 7 line 45-49; e.g. the wherein another magnet

is placed according to attraction or rejection to magnet 107); and

visually representing the value of the attribute (Fig. 1) in terms of whether the physical

weight (col. 3 lines 10-12 and col. 4 lines 44-45) of the predetermined object (col. 5 line 39-40;

wherein the magnets are represented by circular shapes with a pictogram in the center) is heavy

or light (col. 7 lines 58-59), wherein an initial display position (Fig. 1 and col. 7 line 10; e.g. a

default position) of the predetermined object is set (col. 5 line 39-40; wherein the magnets are

represented by circular shapes with a pictogram in the center), and wherein the visual

representation comprises a virtual force (col. 7 lines 57-59; a movement according to "lighter" or

"heavier) exerted on the predetermined object (col. 5 line 39-40; wherein the magnets are

represented by circular shapes with a pictogram in the center) in at least one direction to displace

the predetermined object from the initial display position to the relative display position (Fig. 1

and col. 7 line 10; e.g. a default position) to the relative display position (col. 7 line 61) within

the range of motion (col. 2 line 17-19 and col. 7 line 37-52).

Although Björn teaches a relative display position that represents physical weight, BjÖrn

does not appear to expressly teach wherein the relative display position represents density and

further a virtual buoyant force exerted on the predetermined object.

Brosnan, however, teaches wherein the relative display position represents density (0073

and 0130; e.g. the physical properties may include density) and further a virtual buoyant force

exerted on the predetermined object (0129 wherein Brosnan teaches an object moving through

water and 0138 wherein Brosnan explicitly teaches buoyancy forces) for providing a realistic

display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive

environment based upon properties), it would have been obvious to one of ordinary skill in the

data processing art at the time of the present invention to combine the teachings of the cited

references because Brosnan would have given Björn additional and alternative methods to

describe a motion of an object (i.e. such as density) for a more friendly and user interactive

system to display objects based on attributes. Further, Bjorn shows a need to represent density

(col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several

shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45

wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic

representation would have been provided as desired by Björn.

With respect to claim 12, Björn teaches A method of processing files in a processing

device, including:

acquiring values of a predetermined attribute (col. 8, lines 2-6; e.g. a weight or number of

shopping lists (i.e. size)) for a plurality of intended files (Fig. 1 displaying a plurality of magnets)

in order to represent the values of a predetermined attribute for the intended files (col. 8, lines 2-

6; e.g. a weight or number of shopping lists (i.e. size)) as a physical weight (col. 3 lines 10-12

and col. 4 lines 44-45), said attribute comprising at least one of: a date and time of file

preparation, a date and time of file updating, an importance of the file to be set by the user, a

type of file to be determined by data format or file usage, a number of times that the file is

updated, and a parameter indicating a frequency of file updating (col. 8, lines 2-6; e.g. a weight,

wherein the weight may be set by a user to teach an importance set by the user);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches

comparison) the value of the attribute with a reference value (col. 7 line 58; e.g. virtual magnet

107 which serves as a reference to other magnets);

setting, for each of the plurality of files, relative display positions of predetermined

objects (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) within a

range of motion (col. 2 line 17-19 and col. 7 line 37-52) defined by the reference value (col. 7

line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), wherein the

relative display positions represents the physical weight (col. 3 lines 10-12 and col. 4 lines 44-

45) of the attribute relative to the reference value (col. 7 line 58; e.g. virtual magnet 107 which

serves as a reference to other magnets), and wherein the relative display positions are set based

on a result obtained from the comparison step (col. 7 line 45-49; e.g. the wherein another magnet

is placed according to attraction or rejection to magnet 107); and

visually representing the value of the attribute (Fig. 1) in terms of whether the respective

physical weights (col. 3 lines 10-12 and col. 4 lines 44-45) of the predetermined objects (col. 5

line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the

center) is heavy or light (col. 7 lines 58-59), wherein an initial display position (Fig. 1 and col. 7

line 10; e.g. a default position) of each of the predetermined objects is set (col. 5 line 39-40;

wherein the magnets are represented by circular shapes with a pictogram in the center), and

wherein the visual representation comprises a virtual force (col. 7 lines 57-59; a movement

according to "lighter" or "heavier) exerted on each the predetermined objects in at least one

direction (col. 7 line 44-45) to displace each of the predetermined objects from the initial display

position (Fig. 1 and col. 7 line 10; e.g. a default position) to the relative display position (col. 7

line 61) within the range of motion (col. 2 line 17-19 and col. 7 line 37-52).

With respect to claim 13, Björn teaches a method of processing files according to claim

12, wherein said acquiring further acquires a size of a storage area that stores at least one file

(607), and said setting sets the relative display position of at least one object corresponding to the

at least one file, based on a comparison result obtained by comparing a data size between the at

least one object and the storage area (col. 5 lines 1-6; e.g. it is interpreted that a magnet holding several shopping lists and being displayed as "heavier" teaches that magnet occupies more storage space), and wherein said displaying and expressing represents visually the comparison result via the another object (col. 8 lines 1-3).

With respect to claim 14, Björn teaches A method of processing files in a processing device, comprising:

acquiring values of a predetermined attribute (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) for a plurality of files, in order to represent the values of a predetermined attribute for intended files (Fig. 1 displaying a plurality of magnets) in order to represent the values of a predetermined attribute for the intended files (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) as a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said attribute comprising at least one of: a date and time of file preparation, a date and time of file updating, an importance of the file to be set by the user, a type of file to be determined by data format or file usage, a number of times that the file is updated, and a parameter indicating a frequency of file updating (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) the value of the attribute with a reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets)

setting a temporary sequence range (col. 2 line 17-19 and col. 7 line 37-52) for each of the plurality of files, said sequence range (col. 2 line 17-19 and col. 7 line 37-52) being defined by the reference value;

determining, based on the temporary sequence range (col. 2 line 17-19 and col. 7 line 37-52), a temporary display position (Fig. 1 and col. 7 line 10; e.g. a default position) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) that symbolically represents one of the files in terms of whether the physical weight thereof is heavy or light (col. 7 lines 57-59; a movement according to "lighter" or "heavier");

displaying the predetermined object that represents the one of the files, at the temporary display position on a screen (Fig. 1);

comparing the values of the predetermined attribute between adjacent files in the temporary sequence (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison);

updating the display position based on a comparison result of comparing adjacent files (col. 7 lines 55-66); and

visually representing the value of the attribute in terms of whether the respective physical weights of the predetermined objects is heavy or light (col. 7 lines 58-59), wherein the visual representation comprises a virtual force (col. 7 lines 57-59; a movement according to "lighter" or "heavier) exerted on the predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in at least one direction (col. 7 line 44-45) to displace the predetermined object from the temporary display position (Fig. 1 and col.

7 line 10; e.g. a default position) to the updated display position within the sequence range (col. 2 line 17-19 and col. 7 line 37-52).

Although Björn teaches a relative display position that represents physical weight, BjÖrn does not appear to expressly teach wherein the relative display position represents density and further a virtual buoyant force exerted on the predetermined object.

Brosnan, however, teaches wherein the relative display position represents density (0073 and 0130; e.g. the physical properties may include density) and further a virtual buoyant force exerted on the predetermined object (0129 wherein Brosnan teaches an object moving through water and 0138 wherein Brosnan explicitly teaches buoyancy forces) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

With respect to claim 16, Björn teaches a method of processing files according to claim 10, further including: acquiring an instruction from a user who intends to cause a display position of the object to be changed; and changing at least one of position, shape and appearance of the object, based on the instruction (col. 2 lines 13-25).

With respect to claim 20, Björn teaches A computer-readable recording medium which stores a program executable by a computer, the program including the functions of:

acquiring a value of an (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) from a computer processor (processor 605) in order to represent a value of a predetermined attribute for an intended file (107) as a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said attribute comprising at least one of: a date and time of file preparation, a date and time of file updating, an importance of the file to be set by the user, a type of file to be determined by data format or file usage, a number of times that the file is updated, and a parameter indicating a frequency of file updating (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) the value of the attribute with a reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets);

setting a relative display position (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) of a predetermined object (col. 5 line 39-40; wherein the magnets are

represented by circular shapes with a pictogram in the center) within a range of motion (col. 2 line 17-19 and col. 7 line 37-52) defined by the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), wherein the relative display position (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) represents the physical weight (col. 3 lines 10-12 and col. 4 lines 44-45) of the attribute (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) relative to the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), wherein the relative display position (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) is set based on a result obtained from the comparison step (col. 7 line 45-49; e.g. the wherein another magnet is placed according to attraction or rejection to magnet 107); and

visually representing the value of the attribute (Fig. 1) in terms of whether the physical weight (col. 3 lines 10-12 and col. 4 lines 44-45) of the predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) is heavy or light (col. 7 lines 58-59), wherein an initial display position (Fig. 1 and col. 7 line 10; e.g. a default position) of the predetermined object is set (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center), and wherein the visual representation comprises a virtual force (col. 7 lines 57-59; a movement according to "lighter" or "heavier) exerted on the predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in at least one direction to displace the predetermined object from the initial display position to the relative display position (Fig. 1 and col. 7 line 10; e.g. a default position) to the relative display position (col. 7 line 61) within the range of motion (col. 2 line 17-19 and col. 7 line 37-52).

Although Björn teaches a relative display position that represents physical weight, BjÖrn does not appear to expressly teach wherein the relative display position represents density and further a virtual buoyant force exerted on the predetermined object.

Brosnan, however, teaches wherein the relative display position represents density (0073 and 0130; e.g. the physical properties may include density) and further a virtual buoyant force exerted on the predetermined object (0129 wherein Brosnan teaches an object moving through water and 0138 wherein Brosnan explicitly teaches buoyancy forces) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

With respect to claim 21, Björn teaches A computer-readable recording medium which stores a program executable by a computer, the program including the functions of:

acquiring values of a predetermined attribute (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) for a plurality of intended files (Fig. 1 displaying a plurality of magnets) in order to represent the values of a predetermined attribute for the intended files (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) as a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said attribute comprising at least one of: a date and time of file preparation, a date and time of file updating, an importance of the file to be set by the user, a type of file to be determined by data format or file usage, a number of times that the file is updated, and a parameter indicating a frequency of file updating (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) the value of the attribute with a reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets);

setting, for each of the plurality of files, relative display positions of predetermined objects (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107) within a range of motion (col. 2 line 17-19 and col. 7 line 37-52) defined by the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), wherein the relative display positions represents the physical weight (col. 3 lines 10-12 and col. 4 lines 44-45) of the attribute relative to the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), and wherein the relative display positions are set based on a result obtained from the comparison step (col. 7 line 45-49; e.g. the wherein another magnet is placed according to attraction or rejection to magnet 107); and

visually representing the value of the attribute (Fig. 1) in terms of whether the respective

physical weights (col. 3 lines 10-12 and col. 4 lines 44-45) of the predetermined objects (col. 5

line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the

center) is heavy or light (col. 7 lines 58-59), wherein an initial display position (Fig. 1 and col. 7

line 10; e.g. a default position) of each of the predetermined objects is set (col. 5 line 39-40;

wherein the magnets are represented by circular shapes with a pictogram in the center), and

wherein the visual representation comprises a virtual force (col. 7 lines 57-59; a movement

according to "lighter" or "heavier) exerted on each the predetermined objects in at least one

direction (col. 7 line 44-45) to displace each of the predetermined objects from the initial display

position (Fig. 1 and col. 7 line 10; e.g. a default position) to the relative display position (col. 7

line 61) within the range of motion (col. 2 line 17-19 and col. 7 line 37-52).

Although Björn teaches a relative display position that represents physical weight, BjÖrn

does not appear to expressly teach wherein the relative display position represents density and

further a virtual buoyant force exerted on the predetermined object.

Brosnan, however, teaches wherein the relative display position represents density (0073

and 0130; e.g. the physical properties may include density) and further a virtual buoyant force

exerted on the predetermined object (0129 wherein Brosnan teaches an object moving through

water and 0138 wherein Brosnan explicitly teaches buoyancy forces) for providing a realistic

display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive

environment based upon properties), it would have been obvious to one of ordinary skill in the

data processing art at the time of the present invention to combine the teachings of the cited

references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

With respect to claim 22, Björn teaches A computer-readable recording medium which stores a program executable by a computer, the program including the functions of:

acquiring values of a predetermined attribute (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) for a plurality of files, in order to represent the values of a predetermined attribute for intended files (Fig. 1 displaying a plurality of magnets) in order to represent the values of a predetermined attribute for the intended files (col. 8, lines 2-6; e.g. a weight or number of shopping lists (i.e. size)) as a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said attribute comprising at least one of: a date and time of file preparation, a date and time of file updating, an importance of the file to be set by the user, a type of file to be determined by data format or file usage, a number of times that the file is updated, and a parameter indicating a frequency of file updating (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) the value of the attribute with a reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets)

setting a temporary sequence range (col. 2 line 17-19 and col. 7 line 37-52) for each of the plurality of files, said sequence range (col. 2 line 17-19 and col. 7 line 37-52) being defined by the reference value;

determining, based on the temporary sequence range (col. 2 line 17-19 and col. 7 line 37-52), a temporary display position (Fig. 1 and col. 7 line 10; e.g. a default position) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) that symbolically represents one of the files in terms of whether the physical weight thereof is heavy or light (col. 7 lines 57-59; a movement according to "lighter" or "heavier);

displaying the predetermined object that represents the one of the files, at the temporary display position on a screen (Fig. 1);

comparing the values of the predetermined attribute between adjacent files in the temporary sequence (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison);

updating the display position based on a comparison result of comparing adjacent files (col. 7 lines 55-66); and

visually representing the value of the attribute in terms of whether the respective physical weights of the predetermined objects is heavy or light (col. 7 lines 58-59), wherein the visual representation comprises a virtual force (col. 7 lines 57-59; a movement according to "lighter" or

"heavier) exerted on the predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in at least one direction (col. 7 line 44-45) to displace the predetermined object from the temporary display position (Fig. 1 and col. 7 line 10; e.g. a default position) to the updated display position within the sequence range (col. 2 line 17-19 and col. 7 line 37-52).

Although Björn teaches a relative display position that represents physical weight, BjÖrn does not appear to expressly teach wherein the relative display position represents density and further a virtual buoyant force exerted on the predetermined object.

Brosnan, however, teaches wherein the relative display position represents density (0073 and 0130; e.g. the physical properties may include density) and further a virtual buoyant force exerted on the predetermined object (0129 wherein Brosnan teaches an object moving through water and 0138 wherein Brosnan explicitly teaches buoyancy forces) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45

wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic

representation would have been provided as desired by Björn.

With respect to claim 26, Bjorn teaches the file processing apparatus according to Claim

1, wherein the attribute includes a data size (col. 8 lines 1-2; e.g. one and several shopping lists

describes a data size).

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bjorn and Brosnan as applied to claims 1 and 10 above in view of Vaananen et al.

(Vaananen hereinafter) U.S. Patent Application 2002/0175896 A1.

With respect to claim 2 and similar claim 11, Bjorn fails to teach a file processing

apparatus according further including an inclination detector which detects inclination of a

predetermined region in the file processing apparatus operated by a user, wherein according to

the inclination detected by said inclination detector said position determining unit varies the

relative display position and the direction in which the virtual force is exerted.

Vaananen, however, teaches this limitation as element 50 of figures 2 and 5 and

paragraph 0078. Therein an accelerator sensor is disclosed to measure tilting movements.

It would have been obvious to one of ordinary skill in the data and display processing art

at the time of the present invention to combine the teachings of the cited references because the

teachings of Vaananen would have provided Bjorn's and Brosnan's system with the ability to

vary a relative display position to obtain an easier to use user interface. Vaananen suggests in

paragraph 0010 a provision of adjusting a display view in a manner as natural as possible. Bjorn

suggests in column 4, lines 44-45, a need to be able to implement metaphors of the physical world and further in col. 13 line 35 that the invention can be implemented on a portable device (e.g. a Cordless Screen Phone).

Claims 7, 8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Bjorn and Brosnan as applied to claims 1, 3-6, 9, 10, 12-14, 16, 20-22, and 26 above further in view of Adler et al ("Adler" hereinafter) U.S. Patent 6,340,957.

With respect to claim 7 and similar claims 8 and 15, Bjorn teaches a file processing apparatus as applied to claims 1, 3-6, 9, 10, 12-14, 16, 20-22, and 26 above.

Bjorn fails to teach a file processing apparatus further including a vibration detector which detects a swaying motion at a predetermined region of the file processing apparatus operated by a user, wherein said comparison processing unit performs a comparison processing when the motion is detected, and said position determining unit updates the relative display position according to the result obtained from said comparison processing unit.

Adler, however, teaches these limitations from at least (col. 15 lines 15-22). Therein displayed data is manipulated according to vibration for accessing and managing data in a straightforward manner.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because this feature of Adler would have satisfied Bjorn's and Brosnan's need for accessing and managing data in a natural manner which is needed by Bjorn (column 4 lines 44-45) for the benefit of displaying relationships between files in a user friendly display.

Response to Arguments

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant states that the amendments clarify that the value of the attribute of the file is represented as a physical weight and a density, exerting a virtual buoyant force on an object, and representing whether the physical weight and the density of the object is heavy or light.

Accordingly as seen above, the combination of Bjorn and Brosnan are seen to render obvious the above-mentioned aspect. Specifically, Brosnan exerts a virtual buoyant force on an object (0130; e.g. Brosnan teaches a diamond shaped object falling through water). Further, Bjorn teaches representing whether the physical density of the object is heavy by a heavy/light behavior (col. lines 1-6) while Brosnan teaches density of an object (Brosnan, [0073]).

Thus, in combination as seen in the rejection above, Bjorn and Brosnan are submitted to teach the claims as amended.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-Th 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TIMBLIN/

Examiner, Art Unit 2167